

AMENDMENT UNDER 37 C.F.R. § 1.111
U. S. Application No. 09/590,010

REMARKS

Claims 1-15 are all the claims pending in the application, including new claims 6-15 added by the present Amendment.

Claims 1-5 are rejected under 35 U.S.C. § 102(e) as being anticipated by Honma et al. (US 5,774,634, hereafter "Honma"). Applicant respectfully traverses the rejection with the following comments.

The present invention relates to an image forming method in which gradation is expressed in each of a plurality of unit blocks, each configured by a plurality of dots. In an exemplary embodiment of the method, image recording is performed such that unit blocks, which are adjacent to each other in a main scanning direction of the image recording, are provided with gradation characteristics in different matrix arrangements by switching a first front portion and a first rear portion, which are divided at an intermediate position in a sub-scanning direction.

Honma relates to an image processing apparatus and method in which a plurality of gradation information storage units are provided, at least one of which is selected to store a given body of gradation information, based on command information, such as resolution information.

Applicant submits that Honma fails to teach or suggest an image recording for color image data is performed in such a way that unit blocks, which are adjacent to each other in a main scanning direction of the image recording, are provided with gradation characteristics in different matrix arrangements by switching a front portion and a rear portion, which are divided at an intermediate position in a sub-scanning direction, as recited by claim 1. The Examiner

AMENDMENT UNDER 37 C.F.R. § 1.111
U. S. Application No. 09/590,010

asserts that col. 6, lines 6-29 of Honma disclose these features of the claim, but Applicant respectfully disagrees. Col. 6, lines 6-29 of the reference states the following:

On the other hand, image data possessing gradation information (color information included) written in the PDL is, by the discriminating circuit 2, selectively transmitted to a branch line 2b. It is sectioned into blocks each of which is composed of 8x8 pixels (one pixel has 256 gradations) by a block formation circuit 9 composed of a delay memory for 7 lines. The image data sectioned into the blocks is, by an encoding circuit 10 for encoding each block, encoded after it has been subjected to a compression process. Then, the encoded data is stored in a gradation memory 11.

The line picture data stored in the resolution memory 4 is sectioned into blocks each of which is composed of 8x8 pixels (one pixel has 1 gradation) by a block formation circuit 5. Image data stored in the gradation memory 11 is decoded by a decoding circuit 12 before the line picture data and the image data are synthesized by an image synthetic circuit 6 while synchronizing with each other by a memory control circuit 17 in accordance with a synchronous signal received through an input terminal 18 and transmitted from an output device, for example, a page printer. The synthesized image data is rastered by a raster circuit 7 before it is transmitted through an output terminal 8 to the output device.

Honma relates to disparate treatments of character and gradation data. To the extent that the data may be adjacent to each other, they are not switched, since this would fundamentally alter the composition of the original image. The reference is not relevant to the problems addressed by the present invention.

In particular, the reference is silent regarding adjacent unit blocks being provided with gradation characteristics in different matrix arrangements by switching a front portion and a rear portion which are divided at an intermediate position in a sub-scanning direction, as recited by claim 1. Therefore, claim 1 is not anticipated by Honma, for at least this reason.

Claim 2 is not anticipated by Honma, at least because of its dependence from claim 1.

With respect to claim 3, Applicant submits that claim 3 is not anticipated by Honma for an analogous reason to that presented above in relation to claim 1.

AMENDMENT UNDER 37 C.F.R. § 1.111
U. S. Application No. 09/590,010

Also, Honma fails to teach or suggest that unit blocks are shifted by one half of one block of the matrix in the main scanning direction. The portion of the reference cited by the Examiner, which is quoted above, is silent regarding this feature of claim 3.

Furthermore, Honma does not teach or suggest adjacent unit blocks being provided with gradation characteristics in different matrix arrangements by switching a second front portion and a second rear portion which are divided at an intermediate position in a main scanning direction in the matrix, as recited in claim 3. The cited excerpt of the reference does not disclose anything about switching portions.

Therefore, claim 3 is not anticipated by Honma for these reasons.

Claims 4 and 5 are allowable over the prior art, at least because of their dependence from claim 3.

With further regard to claims 2 and 4, Applicant submits that the cited excerpt of Honma does not disclose or suggest that each dot in the unit blocks is recorded at a size corresponding to a given gradation. The cited portion of the reference does not indicate any particular feature of dots in a unit block. In fact, dots are not mentioned at all. Thus, claims 2 and 4 are allowable over the prior art for this additional reason.

New claims 6-15 are added to further define the present invention. Applicant submits that claims 6-11 are allowable over the prior art, at least because of their dependence from claims 1 and 3, respectively. Also, claims 12-15 are allowable for reasons analogous to those presented above for claim 1.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

AMENDMENT UNDER 37 C.F.R. § 1.111
U. S. Application No. 09/590,010

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

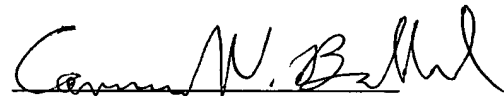
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